DOCUMENT RESUME

ED 033 887 SP 003 245

AUTHOR	Morgan, Jack C.; Schreiber, Jean E.
TITLE	How To Ask Questions.
INSTITUTION	National Council for the Social Studies, Washington, D.C.
Pub Date	69
Note	8p.
Available from	National Council for the Social Studies, 1201 16th Street, N.W., Washington, D.C. 20036 ($0.25; quantity discounts).
EDRS Price	EDRS Price MF-$0.25 HC Not Available from EDRS.
Descriptors	*Questioning Techniques, Social Studies, Student Teacher Relationship, Thought Processes

Abstract

This pamphlet is designed to aid teachers, particularly social studies teachers, in improving their classroom questioning techniques. An introductory section notes the importance of effective questioning in the stimulation of thinking and learning. A technique is suggested by which a teacher can measure his question-response patterns by tape-recording classroom discussion and plotting the teacher-student question ratio. A discussion of the relationship between the teacher's purpose and types of questions used includes sample questions to illustrate the various classifications of questions according to the levels of intellectual behavior they elicit, e.g., Bloom's six levels (knowledge, comprehension, application, analysis, synthesis, and evaluation); Pate and Bremer's convergent and divergent questions; and Carner's concrete, abstract, and creative levels of questions. A suggested list of "skeletal questions" is provided, applicable to various contexts and grade levels, and a list of "Guidelines for Good Questions" discusses precise wording, appropriate timing, clarity of purpose, individualization, eliciting student response, encouraging student questions, exploring incomplete answers, and stimulating creative thought. "Question-Asking Practices To Avoid" are also listed. A 17-item annotated bibliography provides selected references. (JS)

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SEP 25 1969

How To Do It Series - No. 24

How To Ask Questions

National Council for the Social Studies
A DEPARTMENT OF THE NATIONAL EDUCATION ASSOCIATION
1201 16th Street, N.W., Washington 6, D. C.

ED033887

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
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Most educators recognize the question as an important instrument in classroom practice and believe that questioning plays an important role in learning. Contributors to professional publications commonly attach great importance to questioning as a teaching technique; teachers in classrooms commonly devote an important portion of the school day to question-centered discussions. Estimates are that from two-thirds to four-fifths of the typical school day is taken up with questioning activities. Indeed, recent research indicates that some elementary school teachers average nearly three and one-half questions per minute.[1]

As with other teaching activities, it is the *quality* of the questioning that should receive emphasis. To use questions effectively as a teaching device, well-developed techniques are needed; yet few teachers have experienced instruction in either the theory or the art of questioning. Most teachers have developed their question-asking techniques through a series of trial-and-error experiences in the classroom.

Good questions are of special importance in social studies. It is through questioning that the problems of human relationships are thoughtfully examined. Indeed, the quality of the question determines whether or not pupils will develop mature and thoughtful insights. Through asking questions the teacher may stimulate thinking and learning. While he is concerned with the topic under discussion at a particular time, equally important is the development of pupils' ability to acquire knowledge and understanding independently. Thus the teacher will want to plan learning experiences that cultivate both curiosity in his students and the desire to satisfy curiosity through investigation.

[1] Floyd, William. "An Analysis of the Oral Questioning Activity in Selected Colorado Primary Classrooms." (Unpublished doctoral thesis, Colorado State College, 1960) p. 139. Schreiber, Joan E. "Teachers' Question-Asking Techniques in Social Studies." (Unpublished doctoral thesis, The University of Iowa, 1967) p. 74.

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Measuring Question-Response Patterns

In the typical classroom, questions asked by the teacher far exceed the number asked by the students. In Floyd's study of primary teachers, for example, the ratio of teacher questions to pupil questions was as high as 95 to 5 in some classrooms.[2] The authors of this bulletin suggest that teachers determine their own ratio of teacher-student questions by using a tape recorder during discussion periods. Later, when playing back the tape, the teacher can record a "T" for each question he asked and an "S" for each question posed by a student. From this he can determine readily the teacher-student question ratio.

If a "T" is used to signify a question asked by the teacher and an "S" is used to signify a question posed by a student, and the questioning pattern is T-S-T-T-S-T-T-T, one may suspect that a student is raising a question for the purpose of clarifying a question the teacher has asked. One wonders if the student's question is addressed to the teacher with the expectation that the answer will be forthcoming from him. In the foregoing example, it would seem that there is little interaction among students the T-S-T-T-S-T-T-T pattern indicates the discussion is quite teacher directed. Is so much teacher involvement needed? By replaying the tape and carefully analyzing the discourse that took place, the teacher may find that is was unnecessary

[2] Floyd, *ibid.*, pp. 6-8

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for him to take such an active role in the discussion. If the questioning pattern shifts to S-T-S-S-S-S-S-T in a later session, it would appear that *students* have now become actively involved in asking questions. A slightly more sophisticated type of teacher-student interaction system may be preferred by some. Teacher questions, student questions, *and* teacher and student responses can be categorized from the same tape, question and response pattern might be recorded as follows: TQ-SR-SQ-SR-SR-TR-TQ . . .

Other than an occasional situation where a teacher may feel a need to dominate the situation or be reluctant to permit discussion in the classroom, why is it that students frequently do not ask questions? Inaction on the part of students may reflect in many cases, a lack of preparation in *how* to ask questions. A thought-provoking class discussion involves more than the teacher asking questions it also involves guiding students toward asking effective questions. By acquainting students with the characteristics of good questions, by helping them to formulate questions, and by aiding students in analyzing their own questions, improvement in question asking should be abetted. Teacher example plays an essential role — a teacher's thought-provoking questions are likely to result in similar questions by students.

It is the purpose of the remainder of this bulletin to provide background and insight into the questioning process. It is hoped that each reader will be stimulated to develop questioning techniques suited to his own teaching situation and style.

Types of Questions

There are many different kinds of questions teachers ask which are appropriate or "right." Indeed, effective social studies teaching demands that the teacher use a variety of classroom questions. The kind of question asked is basically determined by the teacher's purpose. When trying basically to find out if last night's homework was read, a recall question based on factual information available in the reading assignment might be most appropriate. On the other hand, if the teacher wanted the student to apply factual information to new and unique situations, it would be necessary to phrase a question quite differently. To illustrate, a teacher might require students to demonstrate understanding of the law of diminishing returns by offering examples of this economic law in action — examples not found in the assigned reading.

Obviously, other purposes for asking questions would mean other types of classroom questions. In order for teachers to improve question asking techniques they should engage in self-assessment — determine the purpose for asking the question — and then select the type of question which is appropriate for that purpose. If a teacher first asks, "Why am I teaching this fact or concept?" (and satisfactorily answers the question), framing an appropriate question should be much easier.

Another factor is background of the students. Consider the following question: Why did Thomas Jefferson agree to run for the Presidency in the election of 1800? If the answer was explicitly stated in the text reading or was discussed in class previously, this question would involve only factual recall. However, if students were required to put facts together, go beyond these facts, and draw conclusions, the answer would call for higher order mental processes.

The authors believe that teachers should select their own classification scheme for questions. What is important is that it works and is personally meaningful. Any discrete categorization of questions is inherently artificial. It seems more reasonable to conceive of classroom questions as being on a continuum. One extreme of the continuum may be characterized by lower levels of mental activity such as pure recall, more structured questions, and questions which are likely to have only one "correct" answer. The social studies classroom in which questions of this type predominate will tend to be teacher dominated, with minimal student involvement. A teacher in such a setting may have a more secure feeling he can frame each question and define the only "right" answer which will be accepted. Conversely, questions at the other extreme of the continuum involve more complex, higher mental activity. Questions tend to be more open ended; student participation in class discussions would consume a greater proportion of class time.

The relationship between the teacher's purpose and the type of question is demonstrated by Bloom's taxonomy of cognitive objectives. He and his associates identified six levels of intellectual behavior.[3] These are illustrated below, using the electoral college as a general theme. Note also that the questions could be placed on a continuum similar to the one described in the preceding paragraph.

1. *Knowledge:* At the knowledge level the student is asked to perform simple recall. "In the electoral college, what determines the number of electors from each state?"

[3] Bloom, Benjamin S. (ed.) *Taxonomy of Educational Objectives, Handbook I: Cognitive Domain.* New York: David McKay Co., 1956.

2. *Comprehension:* The student is asked to put information in another form. "Contrast the electoral college system with a direct democracy."

3. *Application:* The student is asked to select facts, principles, and/or generalizations and apply these to a particular problem. Assuming students have not previously read about how a minority candidate could be elected, "How would it be possible for a candidate to receive a majority of the popular vote and still not be elected President?"

4. *Analysis:* Students identify and comprehend the elements or parts of a process, communication, or series of events. "Which step, in the process of electing a President, would you think the American people know least about?"

5. *Synthesis:* The students are encouraged to engage in original creative thinking. "Draft a Constitutional amendment which would preserve the electoral college system but which would prevent the election of a President who did not receive the largest number of popular votes."

6. *Evaluation:* Students are asked to determine how closely a concept or idea is consistent with standards or values: "After examining criticism of the electoral college and proposals for change, which proposed change do you think would be the most democratic? Defend your choice."

According to Bloom, in the typical classroom we seldom require our students to go beyond the level of *Application* questions, and most classroom questions are at the *Knowledge* and *Comprehension* levels.

In a similar manner, and based on Bloom's taxonomy of cognitive objectives, Sanders has developed a taxonomy of questions.[4] Sanders' classification system has seven categories. Four of the categories, *Application, Analysis, Synthesis,* and *Evaluation* are the same as those in Bloom's classification of cognitive objectives. In place of *Knowledge,* Sanders has a category called *Memory*. In place of *Comprehension,* Sanders has two separate categories, *Translation and Interpretation. Translation* refers to changing a communication into a new form. At the elementary school level a frequent translation is from words to pictures or pictures to words. Students might be asked, "What idea is expressed in the picture?" *Interpretation* questions require students to relate information of different kinds — facts, concepts, and generalizations. Assuming that the teacher has not previously asked students to make a comparison, he might say, "Compare the effects of social mobility on the inner city with the effects of social mobility on rural Appalachia."

Pate and Bremer identified two basic types of questions:[5] *Convergent* questions have only one possible answer. "What are the three branches of the federal government?" Divergent questions have more than one possible answer. "Should federal income taxes be increased? Why or why not" In addition, each of the two major types has been subdivided. Again, it is suggested that teachers analyze the types of questions they ask by using a tape recorder to record questions during a class period, playing the tape, and categorizing each question.

Concrete, Abstract, and *Creative* levels of questions have been defined by Carner.[6] *Concrete* questions show special concern for what is observable and tangible. "What services do policemen provide for the community?" *Abstract* questions, requiring more complex mental activity, cause students to generalize, classify, and relate. "What are the similarities of the Soviet and American economic systems?" *Creative* questions represent the highest level of complexity. These questions are characterized by both concrete and abstract applications. "What are the possible courses of action that the United States might take to alleviate the problems of poverty?"

The above classification systems are for illustrative purposes. Many other systems are possible. The system which is best is the one which each teacher prefers — whether it is original with the teacher or from another source. Bloom's *Knowledge* and *Comprehension* categories, Sanders' *Memory* and *Translation* categories, Pate and Bremer's *Convergent* questions, and Carner's *Concrete* questions are categories near the recall, structured end of the continuum. Although these questions are usually easier to ask, they tend not to encourage class discussion.

It has often been stated that memory questions dominate discussion sessions. In a recent study by Schreiber the most prevalent type of question asked by teachers in fifth-grade classrooms was the factual-recall type.[7] Yet Taba and others remind us that recent research on the development of thinking indicates that children develop the capacity for general and abstract thinking sooner than was formerly assumed.[8] Obviously, when factual-recall memory questions are used almost ex-

[4] Sanders, Norris M. *Classroom Questions: What Kinds?* New York: Harper & Row, 1966.

[5] Pate, Robert, and Bremer, Neville H., "Guiding Learning Through Skillful Questioning." *Elementary School Journal* 67: 417-22; May, 1967.

[6] Carner, Richard L. "Levels of Questioning." *Education* 83: 546-50; May, 1963.

clusively, other types of questions go unused. Factual-recall questions discourage student thought and participation by closing a thought pattern or lead to a dead-end in interaction.

Today, social studies curriculum planners frequently write and talk about the "new" social studies. Several similar names or phrases, such as the problem solving approach, the inductive or discovery approach, reflective thinking, and critical thinking are used to describe one form of the new social studies. These methodologies are similar in one important aspect: All encourage higher level thinking (thinking near the *right* end of the continuum) for students in both elementary and secondary social studies classes. Articles about question-asking techniques often have the same emphasis; an article in the *NEA Journal* several years ago was entitled, "Asking Questions to Trigger Thinking."[9]

Below is a list of "skeletal questions," suggested by Hunt and Metcalf, which can be applied in various contexts and at different grade levels in the typical social studies classroom.[10]

"Why do you say that?"
"Do you agree or disagree and why?"
"If you believe such-and-such, then how can you believe so-and-so?"
"Is such-and-such behavior (or belief) consistent with so-and-so behavior (or belief?)"
"What would you do in a case like this?"
"How do you explain this fact?"
"Why do you believe that?"
"Why would you do that?"
"Why do you think that so many people in our community believe so-and-so?"
"If you did that, what might the results be?"
"Can you define that clearly, and give us some examples?"
"What does this statement mean?"
"What other way could you say it?"
"Can you give an example or illustration of this?"
"How would you define this word?"
"How could we prove or disprove a statement like this?"
"How can we get facts which will answer this?"
"How reliable are such data?"
"What do these facts mean?"
"What can we conclude from a study of these data?"
"Which consequences do you prefer?"

[7] Schreiber, *op. cit.*, p. 137.
[8] Taba, Hilda. *Curriculum Development: Theory* and *Practice*. New York: Harcourt, Brace and World, 1962. pp. 188-89.
[9] Aschner, M. J. M. "Asking Questions to Trigger Thinking." *NEA Journal* 50:44-46; September, 1961.
[10] Hunt, Maurice P., and Metcalf, Lawrence E. *Teaching High School Social Studies*. New York: Harper & Row, 1968. p. 181.

Guidelines for Good Questions

Questioning is not an innate talent. It is a skill which must be developed, and proficiency in asking questions is usually acquired only after much practice. There are some basic procedures to consider in developing effective questioning. The writers of this bulletin suggest the following guidelines for teachers.

1. Precise Wording

Students should readily grasp the intent of the question and should never be puzzled about what is being asked. Examples of precisely worded questions would be: "Using your maps and starting from Independence, Missouri, in which direction do you go to reach the Platte River?" "What do you mean by *fording* a stream?"

A teacher needs to give careful thought to the way a question is stated. This involves previous planning as well as quick "on-the-toes" thinking in classroom situations. When earlier planning has not taken place, the teacher may find himself asking a question only to realize that it has been poorly worded. Students then become perplexed and unable to respond for lack of understanding the question. As a result the teacher must rephrase the question, sometimes more than once, which may be even more confusing to the students. Rephrased questions often incorporate different content; students consequently are faced both on appropriate response and with selecting the specific question to be answered. To avoid such traps and to assure questions are precisely worded, it is suggested that teachers plan ahead and think through the pivotal, or basic, questions that they will ask during discussion.

2. Appropriate Timing

Questions should provide continuity to the discussion topic and reflect the true purpose of a lesson and the content of the material. This means that questions are to be asked only when they effectively contribute to learning. To illustrate, consider students who have just studied about Alaska and are now studying about the Hawaiian Islands. The teacher asks: "How would you describe the climate of the Hawiian Islands?" After discussion of that question, he proceeds: "What are the geographic factors influencing this climate?" Again, discussion is followed by another question: "Contrast the climate of the Hawaiian Islands and the climate of Alaska." Continuing, the teacher asks: "What effects does the climate have on the lives of the people in each

of the two states?" and "What can you say, in general, about climate and its effects on the lives of people?" A teacher who employs proper sequencing of questions is concerned not only with checking on facts, but also with the development of higher thought processes. Do students understand reasons for the facts? Can they relate present knowledge and understanding to previously learned information? And most important, are they able to use this information to reach a generalization?

3. *Clarity of Purpose*

Formulate questions in accordance with the purpose for which they are asked. If the teacher is interested in clarifying terminology, he may ask: "What is meant by foreign trade?" In attempting to clear up a misconception, the teacher might say, "You have said the farther south we go on earth, the warmer the climate becomes. What are your reasons for thinking this?" If the purpose is to identify important factors of a just-completed discussion, he might ask: "What were the *main* concerns of the pioneers as they traveled westward?" Thus by keeping in mind the purpose of a question when formulating it, the teacher can proceed to develop questions that are essential to a well-rounded grasp of a problem or topic.

4. *Individualizing Questions*

Length and difficulty of questions depend on the nature of the learner. A slow learner is likely to find the following impossible to answer. "From what you have already learned about the United States, what can you give as the probable reason for so much rainfall on Canada's western coast?" Such a question would be appropriate for a student able to select facts from previously learned material and apply them to new problems. The slow learner will often respond to a question that calls upon him to tell personal experiences he has had; such a student may be able to state his opinion when there already has been a discussion of the topic. For the less capable student it might be considered sufficient, for example, if he became acquainted with the problems attendant to the building of the first railroads across our nation. At the same time a student in the average range of achievement should go into more depth in learning about this period of our history and should engage in thinking that involved seeing relationships and drawing conclusions. He might be asked to compare the problems experienced by the railroad builders at that time with the problems the builders of interstate highways have today. Teachers can come closer to coping with individual differences among students by careful phrasing of questions, with student ability and maturity kept in mind.

5. *Directing Questions*

Direct the question to the entire class, pause to allow comprehension, and then call on the student who is to respond. The purpose here is to stimulate each student to think about the question; thus learning is more apt to take place for everyone, not just the student who is called upon. Too often, when one student's name is stated and he is then questioned, the rest of the students sit back leaving the one student to do the thinking. When the question is addressed to the entire group the student has time to prepare his answer before being placed "on stage." An exception to this guideline would be when the student is inattentive, and the teacher wants to bring him back to the class; his name might be stated first to alert his attention, and the question then asked of him. In such a situation, the intent is not to embarrass the student but simply to return his attention to the topic at hand.

6. *Eliciting Student Response*

To encourage wide participation ask questions of students who do not ordinarily respond. Some students are shy and need the teacher's assistance to become involved in the discussion. If a student does not ordinarily respond because of shyness, the alert teacher will watch for a time when he knows the student is well prepared and ask a question he is able to answer. For those students who do not often respond because of their own limited abilities, questions such as the following may be used: "I know you rode on a large jet when you went from Chicago to Boston. What can you tell us about the trip?" "What is a question you would like to have answered when we visit the dairy?"

7. *Encouraging Student Questions*

Encourage students to ask questions of each other and make comments on what has been said. Unless this is done, there is a strong possibility that the discussion will be teacher-dominated. When a question is addressed to the teacher, rather than supplying the answer, the teacher would do well to reflect the question to children in the group. For example: "I know John has been reading on that subject. John, can you answer Peter's question?" "Mary has investigated the mining of gold. Why not ask her?"

Comments sometimes involve controversy and criticism that make the discussion interesting and stimulating. Similarly, they teach students to think and to be sensitive to the opinions of others. To illustrate, a fifth-grade class was discussing early American history. One student reported that he had found that the "undeclared war" with France started in 1781. Another student

stated that he found the date to be 1798. Some of the questions that were asked by students in the class were: "What was your source?" "What was the publication date?" "Would the date of publication have much effect on this information?" "Did anyone else use another source?" "What did that source say?" Here the teacher interjected the following questions, always allowing ample time for discussion after each: "Let's think a bit about the early 1780's. What was our relationship to France at that time?" "Will you summarize the information we have found and discussed?" "Which date is probably correct?" The students selected a date but recognized that there was a difference of opinion concerning it. They went on to say that since it was an "undeclared war," it might be hard to say exactly when it started. Some historians might say it started with the first "big fight," while others might say that it started with the first disagreements or skirmishes; the date chosen would depend on how one defined the "beginning."

8. Exploring Incomplete Answers

Incomplete answers should be further pursued until understanding is obtained. This may be done simply by asking questions such as: "Have we answered our question?" "Do we need more information?" "Where might we find additional information?" "Have we investigated all sides of the problem?" "In answering our question we used some terms which are new to us. I wonder if we know what they mean. When we talked about the location of industries, we referred to the 'fall line.' What is meant by the 'fall line'?" Before proceeding to another question it is often advisable to ask the group if they have any more questions on the topic presently being discussed.

9. Stimulating Creative Thought

Students need to think creatively, independently, and reach their own conclusions. Data, real or simulated, may be used to generate hypotheses and solutions about current social problems. "In Community 'X' 85 per cent of all youth ages 16 to 20 are unemployed, unmarried, and not in school. In addition, the crime rate is relatively high in Community 'X'. In light of the information given, what actions might improve the community and the future for these youths?" Other examples of appropriate questions are: "If the Spanish had explored and settled Canada, what differences would you expect to observe today in Canada?" "In your mind, transport yourself back to the time of colonization of New England. Write a biography telling of your life from the time you were born to your present age." "How do you think the United States might be different today if the South had won the Civil War?" "Should another canal be built across some other part of Central America? Why or why not? If so, where?" "What would you see as the consequences if all taxes were abolished?" "What might happen if we had complete censorship of the news?" In a lifetime, there are situations that call for an individual to think creatively and independently and to draw his own conclusions. Questions which cultivate this type of thinking should be used frequently in social studies classrooms.

Question-Asking Practices to Avoid

Keeping in mind certain question-asking practices to *avoid* is just as important as following the above guidelines. It is believed that minimal use of the following practices will contribute to more stimulating class participation in the discussion of social studies topics.

1. Avoid asking questions requiring a "yes or "no" answer.

Unless the sought after "yes" or "no" answer is a part of a carefully planned sequence of developmental questions, class discussion will go no further. "Yes" and "no" questions encourage guessing and also can lead to a disruptive chorus of responses. In short, the question requiring a "yes" or "no" answer is generally inappropriate for stimulating thought and discussion.

2. Avoid directing most of your questions to the bright students or class volunteers.

It is not uncommon to have a "stimulating class discussion" which lasts an entire period but fails to involve more than 20 or 30 per cent of the class. In everyday conversation we prefer talking to those people who are attentive and respond to our comments. Likewise, there seems to be an inherent tendency in the classroom to look toward, and address our questions to, those pupils who overtly show interest by demonstrating special responsiveness. On the other hand, the non-responsive student needs to become involved. By skillful questioning this student can often become a contributing part of the discussion.

3. Avoid asking leading questions.

A leading question gives the opinion of the teacher in the way the question is phrased. "Why did we have such a poor foreign policy during the 1950's?" When the question is stated objectively, students are more willing to take and defend particular positions, thereby bringing about lively class discussion.

4. Avoid playing a guessing game with students.

When factual responses are sought, the teacher can soon determine if anyone knows the answer. However, if the answer is not known, teachers will sometimes per-

mit students to use valuable class time giving all types of irrelevant material in an attempt to guess the brief response the teacher is after. It seems to the authors that very little is accomplished with this type of activity.

5. Avoid asking questions about unimportant facts or issues.

This "avoid" rule is especially important. Teachers and students should identify those facts, concepts, and issues which seem important. Key questions should be phrased and sequenced to lead to their consideration. It is wasteful to spend time asking questions and discussing issues that are of little relevance or interest to the class.

In conclusion, classroom questions are an essential dimension of the teaching-learning process. Therefore, it follows that social studies teachers will be more effective if they give attention to a systematic analysis of their procedures and techniques in question-centered dialogue.

Selected Bibliography

1. ASCHNER, M. J. M. "Asking Questions to Trigger Thinking." *NEA Journal* 50: 44-46; September, 1961. Also in *Crucial Issues in the Teaching of Social Studies.* Massialas, Byron G., and Kazamias, Andreas M. (eds.). Englewood Cliffs, N.J.: Prentice-Hall, 1964, pp. 144-148. Identifies four types of questions: remembering, reasoning, evaluating or judging, and creative thinking. Provides suggestions for designing good classroom questions.

2. ASSOCIATION OF TEACHERS OF SOCIAL STUDIES IN THE CITY OF NEW YORK. *Handbook for Social Studies Teaching.* Third edition. New York: Holt, Rinehart and Winston, 1967. pp. 38-64. A general treatment of questioning including the nature and scope, mechanics, and characteristics of good questioning, effective question forms, and the handling of student responses. Sample social studies questions, lesson plans, and a checklist for self-evaluation in appraising and improving questioning techniques are included.

3. BRADLEY, R. C. "Structuring Questions." *Arizona Teacher* 54:14-15, 29; March, 1966. Deals with the study of several different types of questions that teachers should structure for purposes of daily instruction and presents ways to induce children to ask similar questions.

4. CARPENTER, H. M. "Study Skills: Asking Good Questions." *Instructor* 74:27-28; November, 1964. Discusses the relationship between asking good questions and the development of the study skills.

5. CONROY, WILLIAM B. "Use of the Question in Teaching Geography." *Journal of Geography* 66:489-491; December, 1967. Especially helpful for teachers of geography. Discusses the use of the question in the teaching of geography and presents examples of thought questions.

6. EULIE, JOSEPH. "The Role of Questioning in the Social Studies." *Social Education* 32:43-45; January, 1968. Describes the questioning techniques as the cornerstone of effective social studies teaching.

7. FAIR, JEAN, and SHAFTEL, FANNIE R. (eds.). *Effective Thinking.* 37th Yearbook. Washington, D. C.: National Council for the Social Studies, 1967. Reviews recent research on the thinking process. Chapter five describes teachers' analyses of their classroom questions.

8. FRAENKEL, JACK R. "Ask the Right Questions!" *Clearing House* 41:199-202; March, 1966. Discusses different types of questions which teachers may ask, depending upon the purposes they have in mind. Provides a taxonomy of questions.

9. FRISTAE, J. W. "Questions, Questions, Questions." *School and Community* 50:15; March, 1964. Identifies questions as either inductive or deductive. Stresses the phraseology involved in questioning.

10. GROISSER, PHILIP. *How to Use the Fine Art of Questioning.* Englewood Cliffs, N.J.: Teachers Practical Press, 1964. Gives suggestions for devising good questions, using questions effec-

tively, and handling pupils' answers. Procedures for stimulating and guiding discussions are also included. A comprehensive and helpful source.

11. HORN, ERNEST. *Methods of Instruction in the Social Studies.* New York: Charles Scribner's Sons, 1937. Chapter 2, pp. 336-358. A general treatment of questioning including the functions of questions, the influence of questioning upon meaning, problems in questioning, and utilization of pupils' questions and answers.

12. KLEBANER, R. P. "Questions That Teach." *Grade Teacher* 81:10, 76-77; March, 1964. Suggests guidelines for construction and evaluation of questions.

13. MILLER, GEORGE L. "The Teacher and Inquiry." *Educational Leadership* 23:550-555; April, 1966. Expresses concern for learning that goes beyond the mere taking in and storing away of someone else's knowledge. Discusses closed and open-ended questions.

14. SANDERS, NORRIS M. *Classroom Questions: What Kinds?* New York: Harper & Row, 1966. Provides assistance in the development of questions that can lead students into more effective and diversified thinking. A taxonomy of questions is presented with each category defined and illustrated by use of sample questions from the social studies. Suggestions for writing questions are included. A very useful book for self-study on the topic of questioning.

15. SNYDER, AGNES. "Who? What? When? Where? How? Why?" *Childhood Education* 40:5-10; September, 1963. Stresses the need to use questions that compel children to really think. Urges teachers to ask fewer questions, enabling children to enter more into the questioning activity.

16. WELLINGTON, JEAN, and WELLINGTON, C. B. "What Is a Question?" *Education Digest* 28:38-39; September, 1962. Suggests that teachers take a closer look at the questions they ask. Criteria are given for judging the value of questions.

17. WOLFSON, MARTIN. "How to Ask Questions in Social Studies." *Clearing House* 28:263-264; February, 1964. Stresses the need for a new orientation toward the interrogatory words, based on the search for new meanings, the quest for new insights, and the applications of the latest developments in the nature of logical thought and analysis. Examples of questioning for intellectual development are given.

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NOTE: This *How To Do It* notebook series, designed for a loose-leaf binder, provides a practical and useful source of classroom techniques for social teachers. Elementary and secondary teachers alike will find them helpful. The titles now available in this series are: *How To Use a Motion Picture, How To Use a Textbook, How To Use Local History, How To Use a Bulletin Board, How To Use Daily Newspapers, How To Use Group Discussion, How To Use Recordings, How To Use Oral Reports, How To Locate Useful Government Publications, How To Conduct a Field Trip, How To Utilize Community Resources, How To Handle Controversial Issues, How To Introduce Maps and Globes, How To Use Multiple Books, How To Plan for Student Teaching, How To Study a Class, How To Use Sociodrama, How To Work with the Academically Talented in the Social Studies, How To Develop Time and Chronological Concepts, How To Teach Library Research Skills in Secondary School Social Studies,* and *How To Ask Questions.*

Dr. Jack Miller, George Peabody College for Teachers, is editor of this series. Dr. Miller welcomes comments about the items now in print and suggestions for new titles.